

ABSTRACT:

A scheduler (100) which implements a method for determining a flexible schedule (205) for executing a plurality of tasks (301-308) in a system having a plurality of resources (101-103, 109-113). The schedule (205) comprises for each task (301-308) a starting time, an ending time, an assignment of resources (101-103, 109-113) to said task (301-308), as well as a collection of times and processing speeds. Using this information, the execution of a task can vary in speed when for example multiple tasks need the same resource. To do this, the scheduler first defines a partial schedule using windows (w_0, \dots, w_{15}) and then determines the length of the windows (w_0, \dots, w_{15}) and the processing speed of each task in each window using linear programming and column generation.

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Fig. 3